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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/481,503	01/12/2000	Koichiro Komatsu	105173	5711

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EXAMINER

ROSENBERGER, RICHARD A

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/481,503

Applicant(s)

KOMATSU ET AL.

Examiner

Richard A Rosenberger

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 7, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida et al (us 4,881,268).

Uchida shows a surface inspection device to determine of the pattern on as surface is acceptable or not. A plurality of inspection conditions, differing in wavelength, are set; the three detectors sense different wavelengths (column 3, lines 54-60 and 62-69). Detection information is generated corresponding to the three inspection conditions (the outputs of units 103A-103C), and combined in unit 104, from which a decision is made as to whether the pattern is acceptable or not.

Uchida does not call the combining in unit 104 a "logical or". However, that reference does state that "[t]he money type determining unit 104 outputs a money-type signal . . . only when all of the money types identified by the money type identifying units 103A to 103C coincide with each other. If one of the money type identifying units 103A to 103C identifies a different money type or direction or judges that the note is non-identifiable, the money type determining unit 104

outputs a counterfeit-note signal." (column 36-44). Thus the "counterfeit-note signal" (unacceptable pattern) is generated when any one of the signals is non-identifiable - the first OR the second OR the third; if the identifying units 103A-103C output a "non-identifiable" signal, NIA, NIB and NIC for 103A, 103B and 103C respectively, ("[i]f one of the money type identifying units 103A to 103C . . . judges that the note is non-identifiable"), then the logical formula for the disclosed combination is NIA OR NIB OR NIC. Those in the art could thus be expected to implement this using a logical OR.

Those in the art could obviously implement the calculations of the general system shown by Uchida in the form of a program to be run by a computer; such implementations are well known in the art.

3. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonezawa (US 6,222,624) and Paul et al (US 6,166,393), In view of Uchida et al (US 4,881,268).

It is known in the art to perform a plurality of tests on an object under a plurality of measurement conditions; both references show this, with Yonezawa using different angles of illumination and Paul et al using, among others, different wavelengths of light (see column 8, lines 30-31). This allows different defects, which may not be detectable under some conditions to be detected by another test; since

each test under different conditions will be detecting a different set of errors, it would have been obvious to decide that a defect exists if any one of the different tests shows a detectable error; this obvious "any one" test is the logical equivalent of the claimed "logical OR". Uchida et al discusses this (see above)

It would have been obvious to use this technique with any type of tests for which different conditions can be expected to detect, or be differently sensitive to, different defects in the object being inspected, and thus would have been obvious to use with another known tests than the particular tests shown by the references.

4. The remarks filed 29 July 2002 argue that "Yonezawa compares sets of detection information from different parts of the pattern"; however, the pattern are on the surface, and the selection of different parts or areas on the pattern is clearly setting different inspection conditions. At least the broader claims in this application do not limit the inspection conditions to exclude part of the difference conditions being different areas.

Additionally, the cited references show various known tests. If there are a plurality of different tests each of which detect different failure conditions, then the obvious straightforward and logical manner of combining the outputs of these tests is simple a logical OR. The different tests are testing for different possible failure conditions, and thus cannot be expected to all produce exactly the same result; if


they were there would be no point in performing the plurality of tests. If one test determines that the pattern is defective then the pattern is in fact defective, even if that defect is not detected by any of the other tests. Thus the proper simple and straightforward manner of combining tests is the logical OR, that is, if any one indicates failure, the total result is failure.

5. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger  
31 October 2002



Richard A. Rosenberger  
Primary Examiner